

Work Order ID 114519

Friday, March 07, 2014 9:20:44 AM

114519

Page 1

Item ID: D3391-025

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:

*M*Date: 14/03/14

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3391	I

100 0.00

100

Mori Seiki

Mori Seiki CNC Lathe Large

MORI SEIKI CNC LATHE LARGE

Memo

0.00

1 Ø KC / mm/L 14/03/08

110 0.00

110

QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

0.00

1 Ø mm/L 14/03/09

112 0.00

112

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

*Skip
M/S/D**1*

DQA: _____

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework Scrap Use-as-is Suspected Unapproved	AGAINST DEPARTMENT/PROCESS Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence Wave/Twist in Tube	Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish Fit/Function	Folio/Program Grain Hardware Inspection Incomplete/Unqualified Instructions Incomplete/Unclear Misaligned/off center Mislabeled Misread Off-set Out of Calibration Out of Sequence	Outside Dimensions Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Positioned Wrong Power Loss/Surge

DQA: _____

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
Bending	Bend <input type="checkbox"/>	Folio/Program <input type="checkbox"/>	Outside Dimensions <input type="checkbox"/>
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Grain <input type="checkbox"/>	Pressure/Forced Set-up <input type="checkbox"/>
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Hardware <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Weld <input type="checkbox"/>
Cuffs	Contamination <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
Crushing	Countersink <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	
Heat Treat	Cut Too Short <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Misread <input type="checkbox"/>	
Marks/Chatter	Drill Holes <input type="checkbox"/>	Off-set <input type="checkbox"/>	
Turning Sequence	Finish <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	

Work Order ID 114519

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114519

Page 3

Item ID: D3391-025

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

150

Skidtubes

Skidtubes

0.00

DC 14/03/19

Skidtubes

Memo

0.00

1-Drill (PILOT HOLE) aft cap holes per Dwg D3391 using DT8803

160

160

CNC Bend 1

CNC Delta 100 Bender

BENDING MACHINE - SKIDTUBES

0.00

Memo

0.00

Form as per Dwg D3391 Using Bend Prog 3391025

- DC 14/03/25

170

170

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

DAS
03
088

14-3-25

H4,18"

DQA:

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date:

Work Order update only

Work Order: _____	DISPOSITION				
Part No. _____	Rework	Skid-tube	Crosstube	Water Jet	Engineering
NCR No. _____	Scrap	Machining	Small Fab	Prod. Eng. Coor.	Quality
	Use-as-is	Thermoforming	Finishing	Rec/Store/Packaging	Other
	Suspected Unapproved	Large Fab	Composite	Supplier	

AGAINST DEPARTMENT/PROCESS

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General			
Bending	Bend	Folio/Program	Outside Dimensions	Pressure/Forced
Centre Not Concentric	BOM/Route	Grain	Over/Under tolerance	Set-up
Cracks	Broken/Damage/Defect	Hardware	Part Incorrect	Temperature/Cure
Crimp/Kink/Ripple/Wave	Burrs	Inspection Incomplete/Unqualified	Part Lost/Missing	Weld
Cuffs	Contamination	Instructions Incomplete/Unclear	Part Moved	Wrong Stock Pulled
Crushing	Countersink	Misaligned/off center	Positioned Wrong	
Heat Treat	Cut Too Short	Mislabeled	Power Loss/Surge	Other
Inspection Strip in Tube	Drawing	Misread		
Marks/Chatter	Drill Holes	Off-set		
Turning Sequence	Finish	Out of Calibration		
Wave/Twist in Tube	Fit/Function	Out of Sequence		

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Friday, March 07, 2014 9:20:44 AM

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Page 4

Item ID: D3391-025

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/7/2014 Start Qty: 1.00

1

Cust Item ID:

Required Date: 3/14/2014 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID
180

Operation
Description
Skidtubes

Set Up/
Run Hours
0.00

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

Skidtubes

Skidtubes

Memo 0.00

1-Open Aft cap pilot hole to .208" as per Dwg D3391

2-Drill float bag holes using DT8809 as per Dwg D3391(Holes marked "A" Only.

3-Drill wearplate holes as per Dwg D3391 using DT8878(Mid Tube) & DT8217
Wearplate Jig.

*****Do Not Open To Finished Size*****

4-Drill Wearshoe holes as per DWG D3391 using DT8939 locating from 2
previously drilled aft wearplate holes.

5-Open wearplate holes to 0.297" and cbore as per dwg D3391

6-Open up all float bag holes to 0.328" and c'sink as per Dwg D3391.

7-Deburr

8- Scribe batch # on fwd end

- DC 14/04/02

14-4-3

DC 14-4-3

DQA: _____ Date: _____

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Work Order update only

Work Order: _____		DISPOSITION	AGAINST DEPARTMENT/PROCESS					
Part No. _____		Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>		
NCR No. _____		Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>		
		Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>		
		Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>			

FAULT CATEGORY

Landing Gear	General			
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Folio/Program	<input type="checkbox"/> Outside Dimensions	<input type="checkbox"/> Pressure/Forced
<input type="checkbox"/> Centre Not Concentric	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Grain	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Set-up
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damage/Defect	<input type="checkbox"/> Hardware	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Temperature/Cure
<input type="checkbox"/> Crimp/Kink/Ripple/Wave	<input type="checkbox"/> Burrs	<input type="checkbox"/> Inspection Incomplete/Unqualified	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Weld
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Moved	<input type="checkbox"/> Wrong Stock Pulled
<input type="checkbox"/> Crushing	<input type="checkbox"/> Countersink	<input type="checkbox"/> Misaligned/off center	<input type="checkbox"/> Positioned Wrong	
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Power Loss/Surge	
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Drawing	<input type="checkbox"/> Misread		
<input type="checkbox"/> Marks/Chatter	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Off-set		
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Calibration		
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Fit/Function	<input type="checkbox"/> Out of Sequence		
			<input type="checkbox"/> Other	

Work Order ID 114519

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Page 5

Item ID: D3391-025

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

190

QC5- Inspect part completeness to step on W/O

0.00

190

QC

Quality Control

① 14-04-04

DAS
9
9-89

200

Chemical Conversion Coat per QSI005 4.1

0.00

200

HandFinish

Hand Finishing

Memo

0.00

1 14-04-04

210

QC7-Inspect Chemical Conversion Coat

0.00

210

QC

Quality Control

Memo

0.00

1 14-04-04

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework Scrap Use-as-is Suspected Unapproved	AGAINST DEPARTMENT/PROCESS Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other
---	--	---	--	--	---------------------------------

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		
Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Heat Treat Inspection Strip in Tube Marks/Chatter Turning Sequence Wave/Twist in Tube	Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes Finish Fit/Function	Folio/Program Grain Hardware Inspection Incomplete/Unqualified Instructions Incomplete/Unclear Misaligned/off center Mislabeled Misread Off-set Out of Calibration Out of Sequence	Outside Dimensions Over/Under tolerance Part Incorrect Part Lost/Missing Part Moved Positioned Wrong Power Loss/Surge

Work Order ID 114519
Friday, March 07, 2014 9:20:44 AM

114519

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Item ID: D3391-025 Accept *N900040100* Setup Start *NS1*
Revision ID:
Item Name: Aft Tube Assembly Stop *NS2*
Start Date: 3/7/2014 Start Qty: 1.00 *1* Cust Item ID:
Required Date: 3/14/2014 Req'd Qty: 1.00 *1* Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*
NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220 *220* Skidtubes	Skidtubes	0.00							
	Memo	0.00							
	1- Instal spacers as per dwg D3391 A/R Magnabond 6398 Batch: <u>127027</u> exp. date: <u>14/05/05</u> cure time 12hrs as per QSI0015								
	2- Grind crossbolts flush								
	3- Back,drill using #9 drill								
	4- Touchup Magnabond								
	5- Deburr								
230 *230* QC Quality Control	QC5- Inspect part completeness to step on W/O	0.00	DAS 27 9.69						
	Memo	0.00							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____

Date: _____

Work Order update only

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Crosstube <input type="checkbox"/> Machining <input type="checkbox"/> Small Fab <input type="checkbox"/> Thermoforming <input type="checkbox"/> Finishing <input type="checkbox"/> Large Fab <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
---	--	---

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General	Folio/Program	Outside Dimensions
Bending	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Pressure/Forced Set-up <input type="checkbox"/>
Centre Not Concentric	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>
Cracks	Broken/Damage/Defect <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Weld <input type="checkbox"/>
Crimp/Kink/Ripple/Wave	Burrs <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
Cuffs	Contamination <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>	
Crushing	Countersink <input type="checkbox"/>	Mislabeled <input type="checkbox"/>	
Heat Treat	Cut Too Short <input type="checkbox"/>	Misread <input type="checkbox"/>	
Inspection Strip in Tube	Drawing <input type="checkbox"/>	Off-set <input type="checkbox"/>	
Marks/Chatter	Drill Holes <input type="checkbox"/>	Out of Calibration <input type="checkbox"/>	
Turning Sequence	Finish <input type="checkbox"/>	Out of Sequence <input type="checkbox"/>	
Wave/Twist in Tube	Fit/Function <input type="checkbox"/>		

Work Order ID 114519

Friday, March 07, 2014 9:20:44 AM

114519

Page 7

Item ID: D3391-025

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

235

Pressure Wash per QSI005 4.3

0.00

1 7614-45

235

HandFinish

Hand Finishing

Memo

0.00

240

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

1 14-725 DAS 34 9.89

240

Powdercoat

Powder Coating

Memo

0.00

START TIME: 18:10

OVEN TEMPERATURE: 320

FINISH TIME: 10:50

250

QC3- Inspect Part Finish

0.00

1x d 10 108105 DAS 15 9.89

250

QC

Quality Control

Memo

0.00

DQA: _____ Date: _____

Date:



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Date:

Work Order update only

Work Order ID 114519

Friday, March 07, 2014 9:20:44 AM

114519

Page 8

Item ID: D3391-025

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

260

260

HandFinish

Hand Finishing

0.00

0.00

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only

<p>Work Order: _____</p> <p>Part No. _____</p> <p>NCR No. _____</p>	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>
---	--	---	--

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other

Work Order ID 114519

Friday, March 07, 2014 9:20:44 AM

114519

Page 9

Item ID: D3391-025

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Aft Tube Assembly

Stop

NS2

Start Date: 3/7/2014 **Start Qty:** 1.00

1

Cust Item ID:

Required Date: 3/14/2014 **Req'd Qty:** 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run

Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2

**Sequence ID/
Work Center ID**

**Operation
Description**

**Set Up/
Run Hours**

Tool ID

Tool #

**Plan
Code**

**Accept
Qty**

**Reject
Qty**

**Reject
Number**

**Insp.
Stamp**

290

QC21- Final Inspection - Work Order Release

0.00

MJS 14-08-07

2Q0

QC

Quality Control

Memo

0.00

RH-87

Picklist Print

Friday, March 07, 2014 9:20:48 AM

Page 1

Work Order ID: 114519

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

114519
D3391-025

Start Date: 3/7/2014

Start Qty: 1.00

Required Date: 3/14/2014

Required Qty: 1.00

Comments:

IPP Rev B 06-02-07 ECN773 dwg rev. D EC
 IPP Rev:C 06-03-28 Update Manuf. Instructions JLM
 IPP rev D 07.03.20 revF dwg EC
 IPP rev E 07.11.07 rev G dwg ecn 1053p EC verified by: DD
 IPP Rev:F 07-11-13 ECN 1056 DD verified by: EC
 IPP Rev:G 08-09-10 revH as per dwg DD verified by:EC IPP Rev:H
 11.11.14 AS PER REV.I DD verified by:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4095-047		Manufactured	No			260	Each	18.0000	1	1		**	

D4095-047

Wearpad Assembly

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	18	
102241	2	
108289	16	

D4095-049

D4095-049

Wearpad Assembly

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	12	
109670	12	
FP002	1	
102216	1	

D6014-090

D6014-090

ALUMINUM EXTRUSION

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG003	74	
79742 86063	17 57	

KC 14-03-07

Picklist Print

Friday, March 07, 2014 9:20:48 AM

Page 2

Work Order ID: 114519

114519
D3391-025

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 3/7/2014

Required Date: 3/14/2014

Start Qty: 1.00

Required Qty: 1.00

D3670-4-200

Manufactured No

230

Each

337.0000

4

4

**

DC 14/04/09

D3670-4-200

Bushing

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	FG	10	
	87709	10	
	LG001	327	
	103880	60	(4)
	109108	242	
	96240	25	

D2646

Manufactured No

270

Each

61.0000

1

1

**

DC 14/08/05

D2646

Aft Cap

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	FG	4	
	85848	2	B113380
	90495	2	X1
	FP001	57	
	103306	18	
	107857	1	
	110816	38	

Picklist Print

Friday, March 07, 2014 9:20:49 AM

Page 3

Work Order ID: 114519

114519
D3391-025

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 3/7/2014

Required Date: 3/14/2014

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

270

Each

1,676.000

2

2

**

300 100805

D3672-1

Phenolic Washer

Location	Loc Qty	Loc Code
FG	10	
85222	10	
ST060	1666	
103845	4	
112218	500	
113581	500	
93886	450	
99099	212	VZ

ALS4-1032-130

AELS4-1032-130 Purchased

No

260

Each

1,136.000

14

14

**

300 100805

AIS4-1032-130

Rivnut

Location	Loc Qty	Loc Code
ST279	1079	X1128649
M128179	122	V14
M128211	957	
st510	57	
M126109	57	

ALS4-1032-225

AELS8-1032-225 Purchased

No

270

Each

992.0000

8

8

**

300 140805

AIS4-1032-225

Rivnut

Location	Loc Qty	Loc Code
FG	30	
M127028	30	
ST280	928	
M127028	10	
M128179	918	X8
st555	34	
M127092	34	

Picklist Print

Friday, March 07, 2014 9:20:49 AM

Page 4

Work Order ID: 114519

114519
D3391-025

Parent Item: D3391-025

Parent Item Name: Aft Tube Assembly

Start Date: 3/7/2014

Required Date: 3/14/2014

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

270

Each

2,081.000

6

6

**

ll wlog los

AN3C4A

Bolt

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	20	
122814	20	
ST512	3	
124221	3	M129520
ST513	2058	
125388	1835	
M127410	1	
M127832	222	

AN3C5A

Purchased

No

270

Each

1,089.000

4

4

**

ll wlog los

AN3C5A

Bolt

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	5	
122800	5	M128911
ST350	1084	
M128057	1084	

NAS1149C0332R

Purchased

No

270

Each

7,672.000

10

10

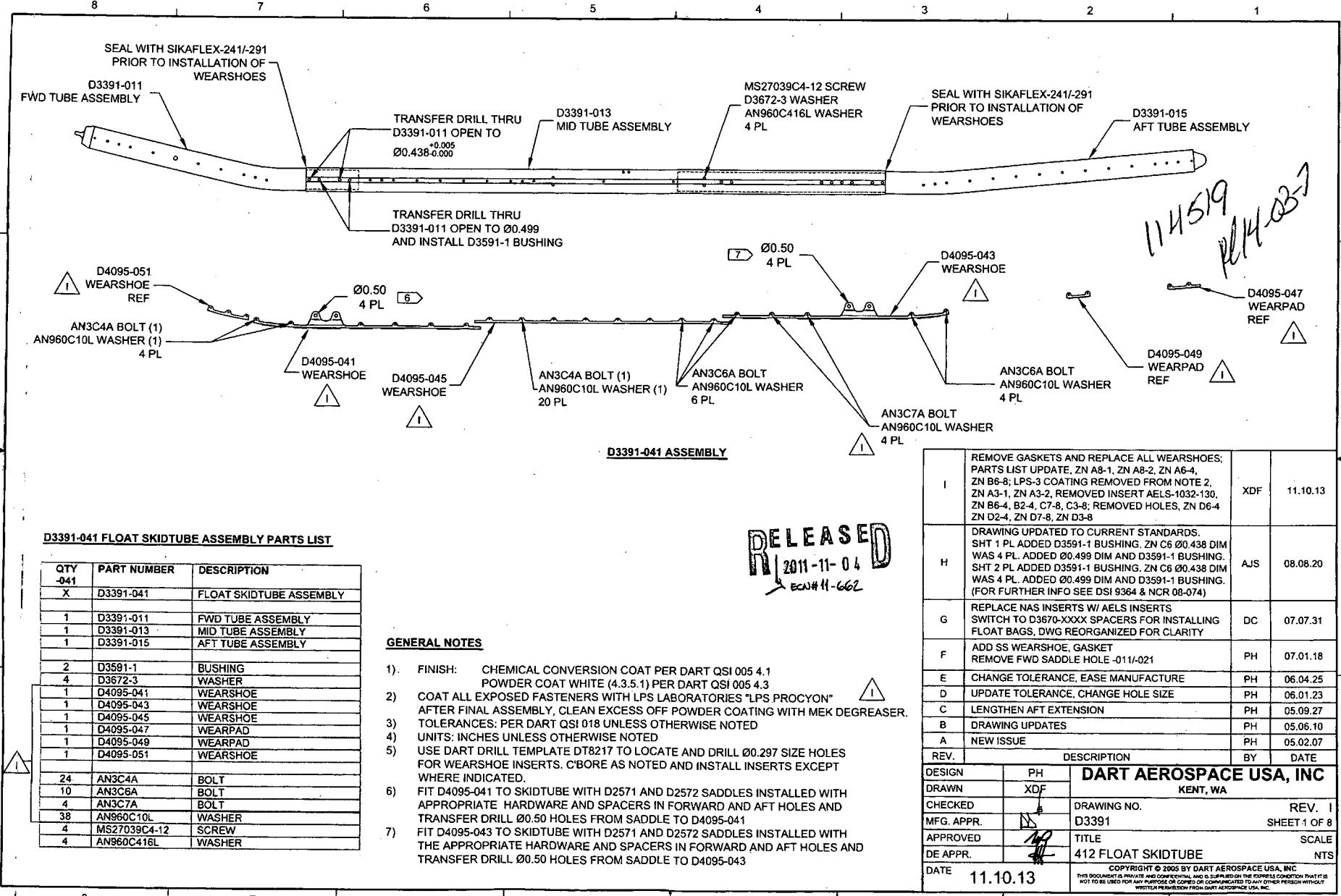
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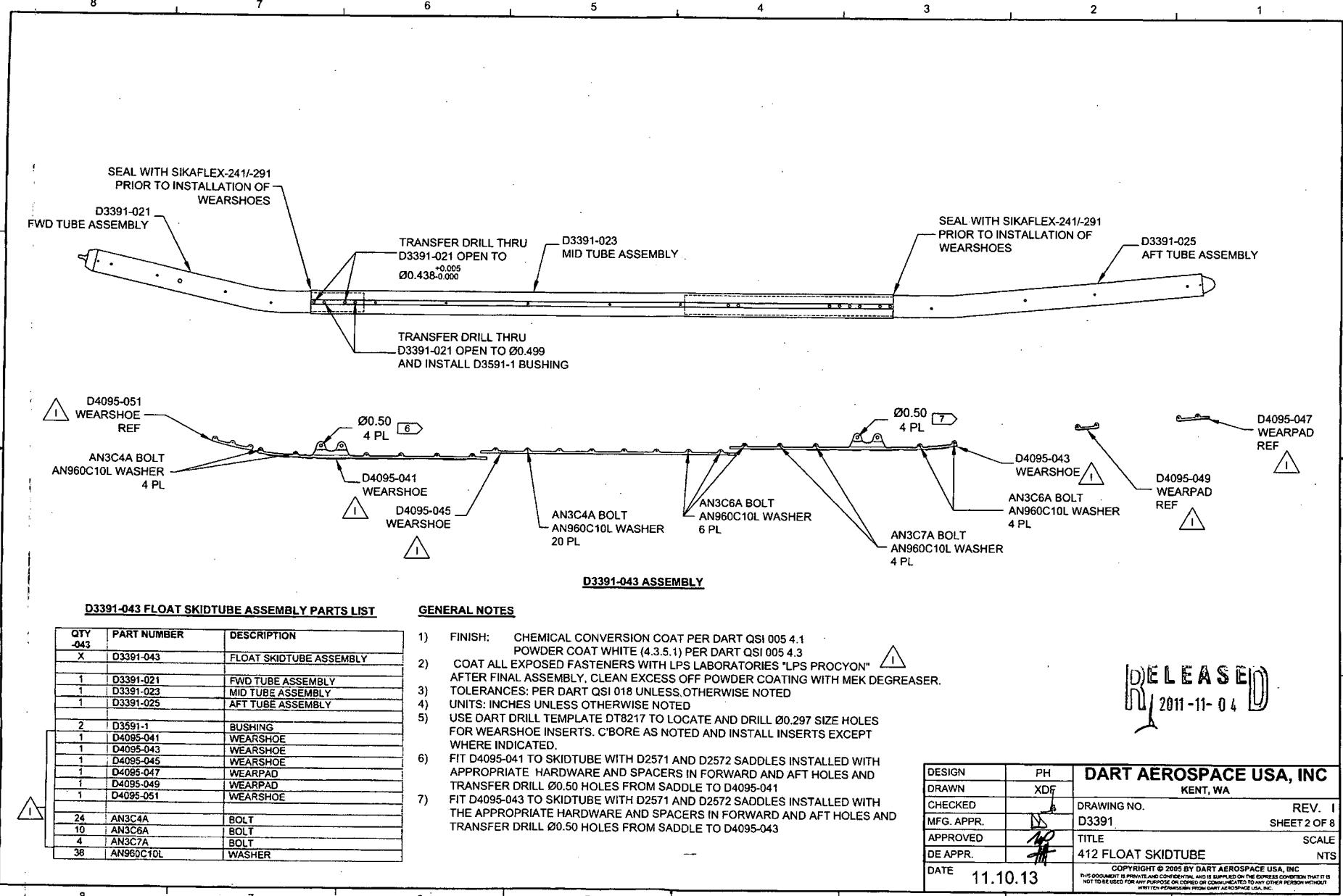
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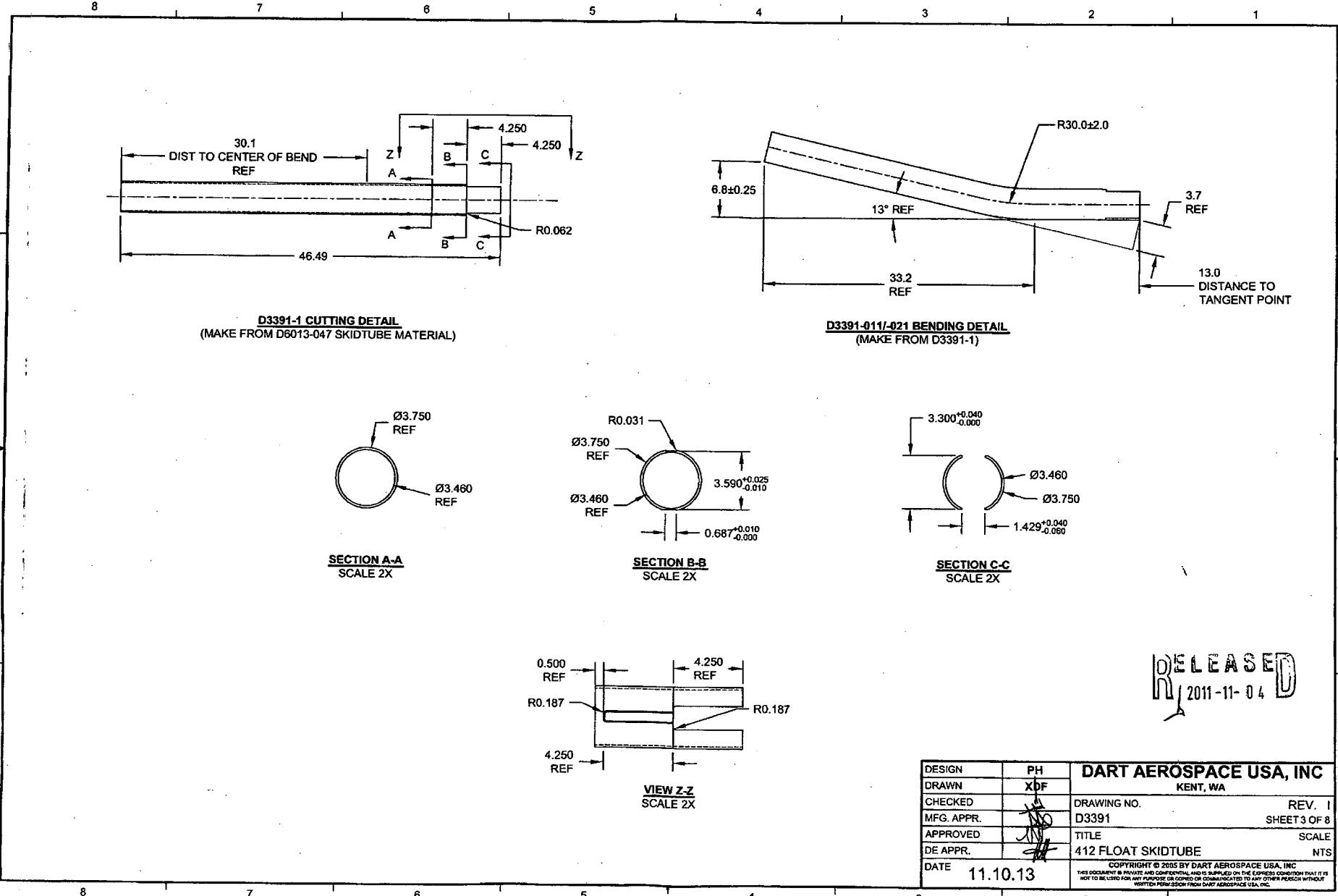
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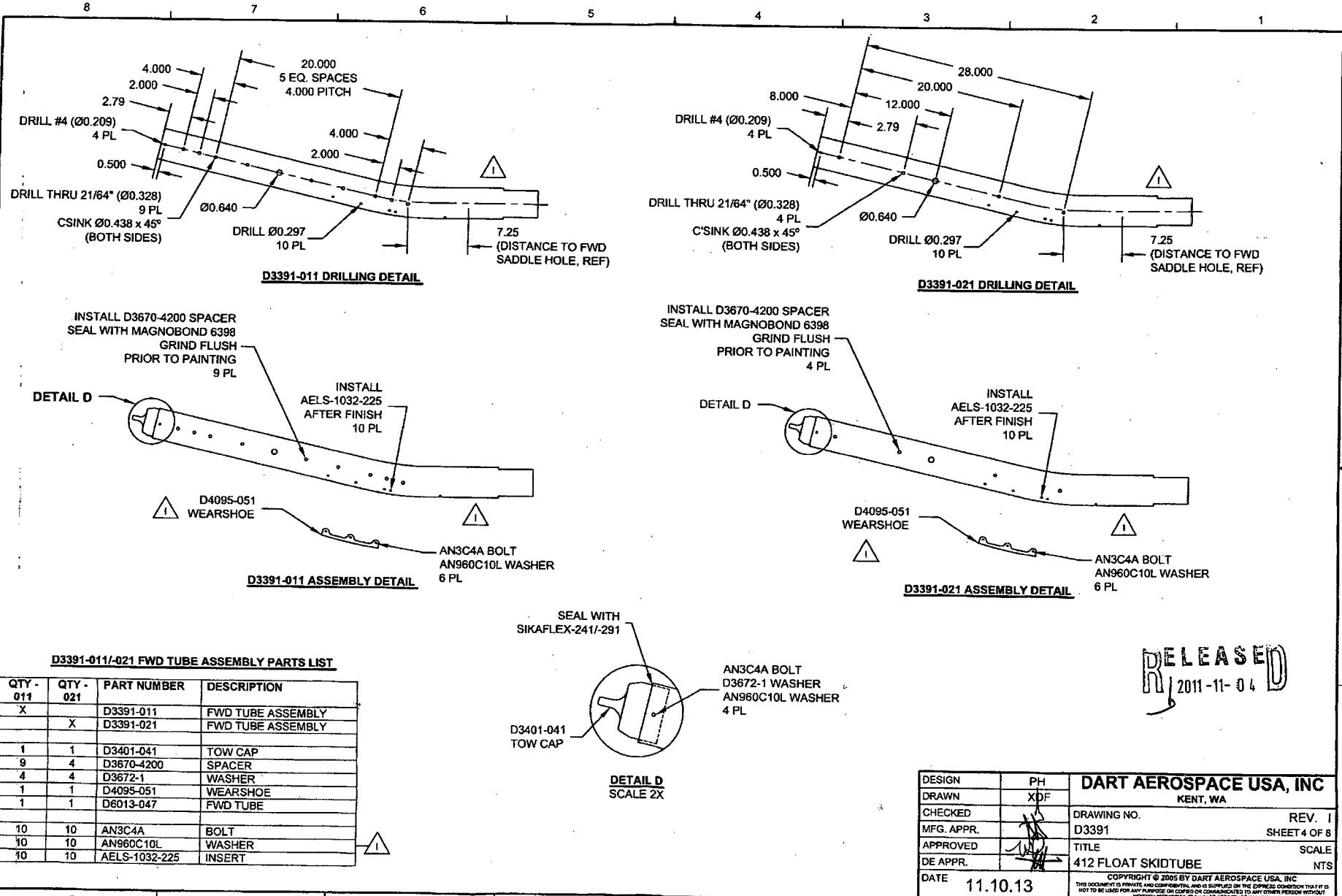
WASHER

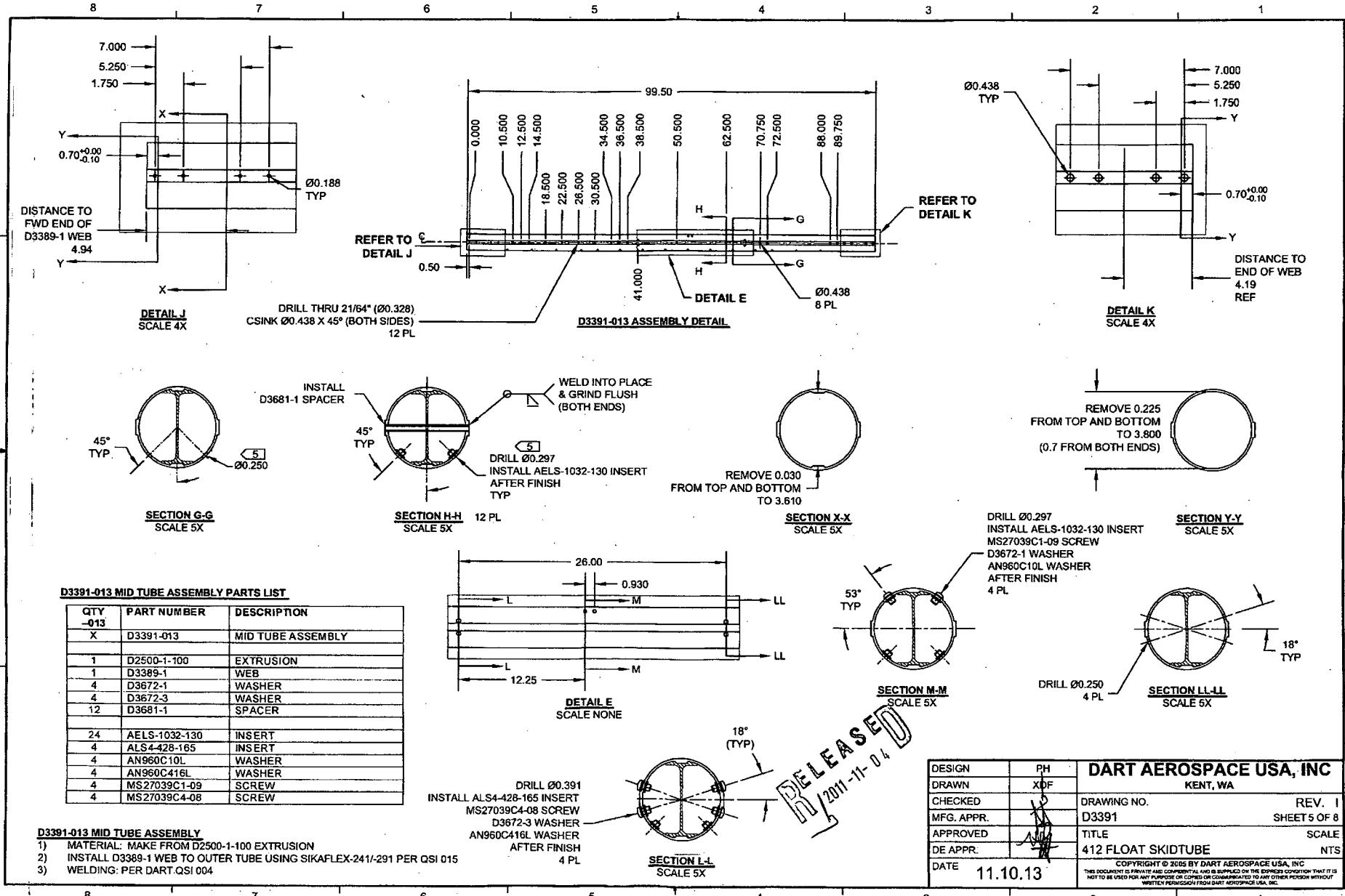
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125654	1101	M129909
st510	6571	
m126319	61	
m127306	2500	
m127410	3000	
m127831	1010	



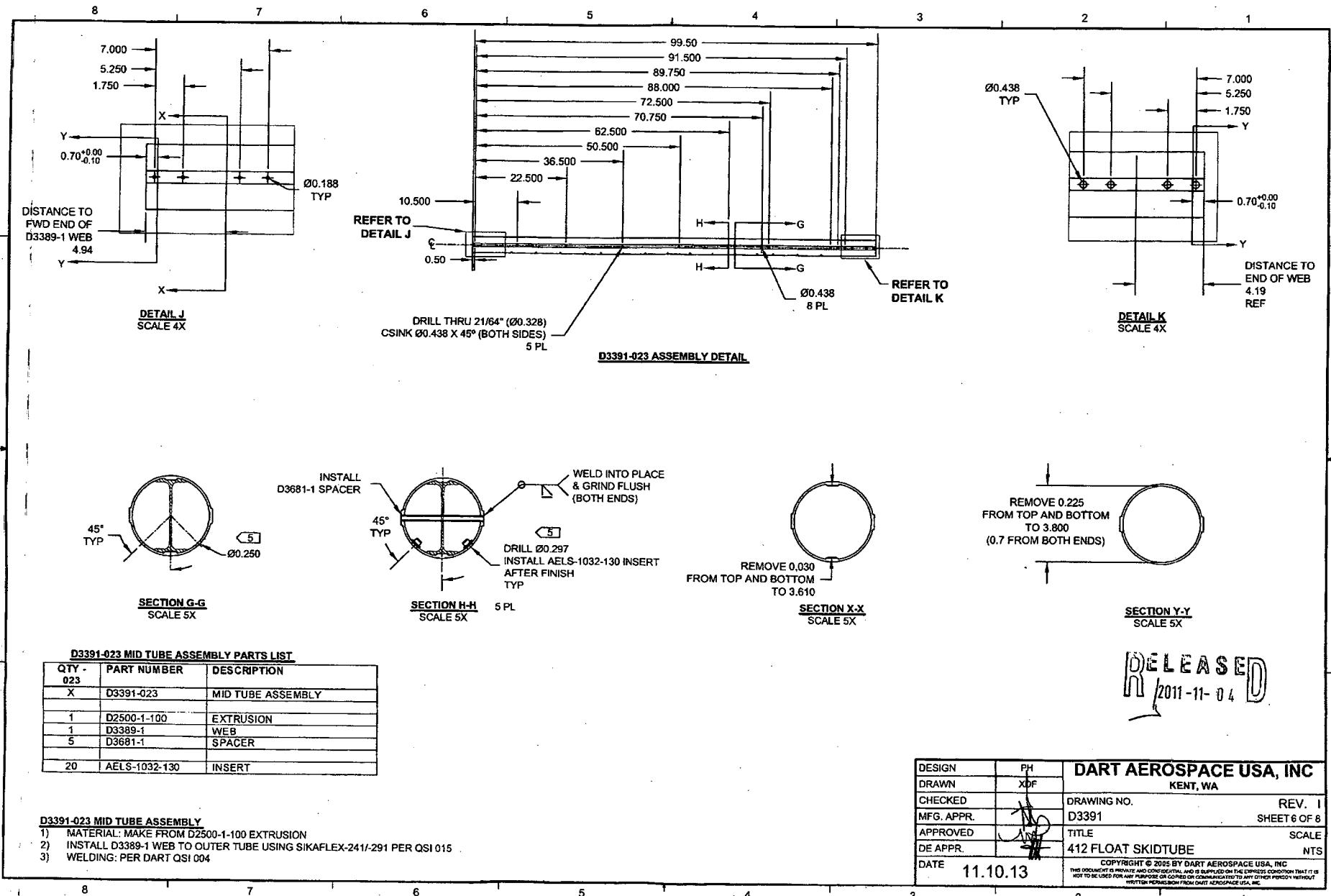


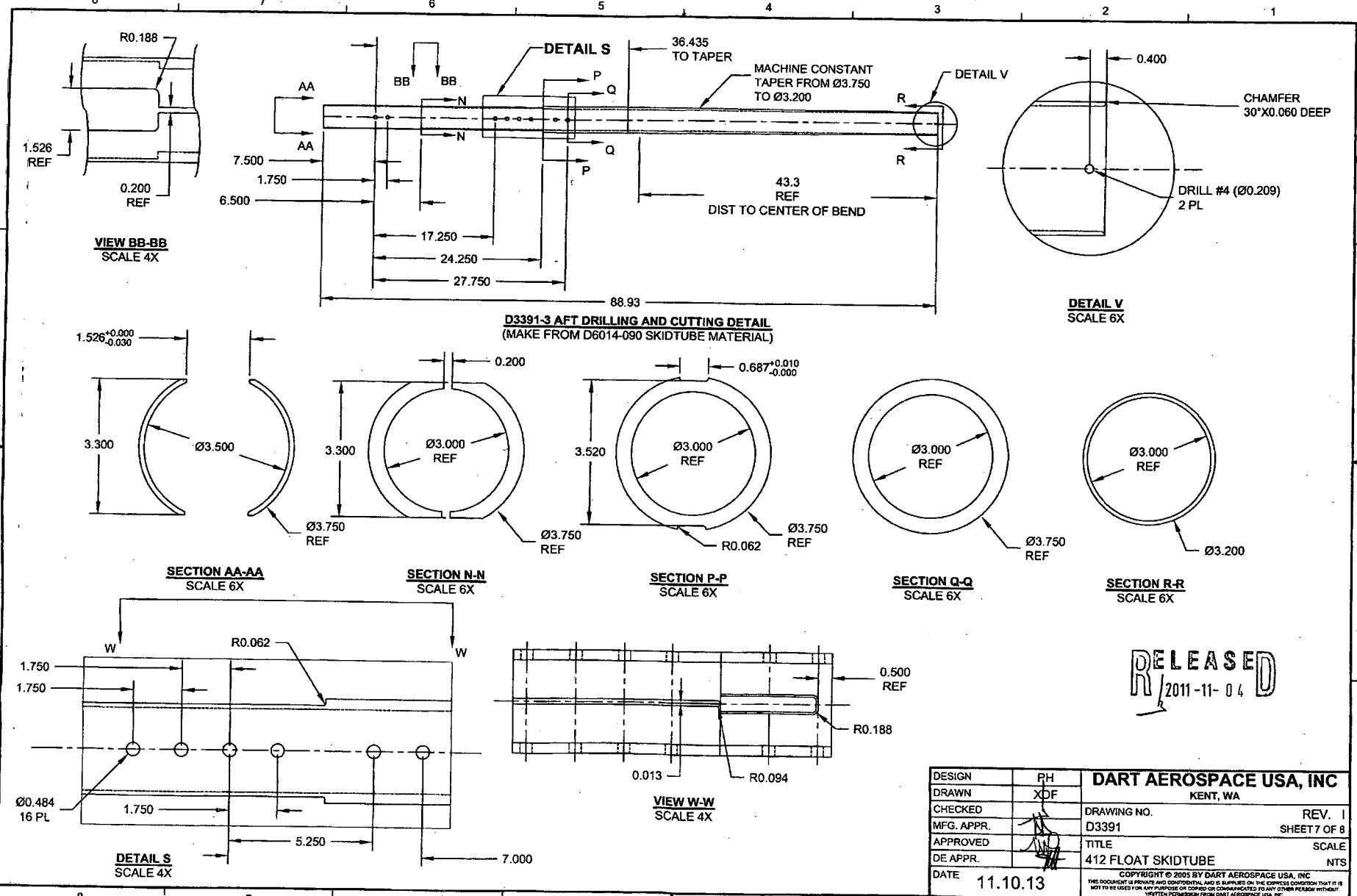


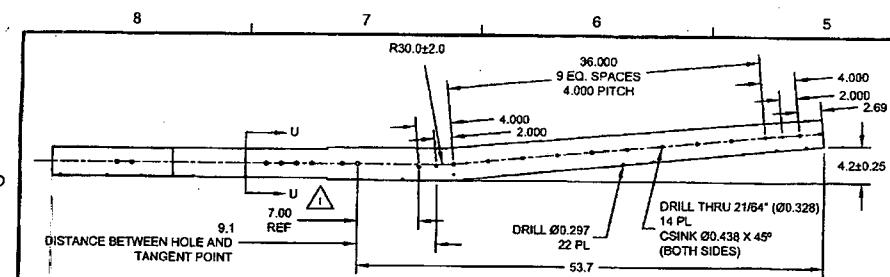




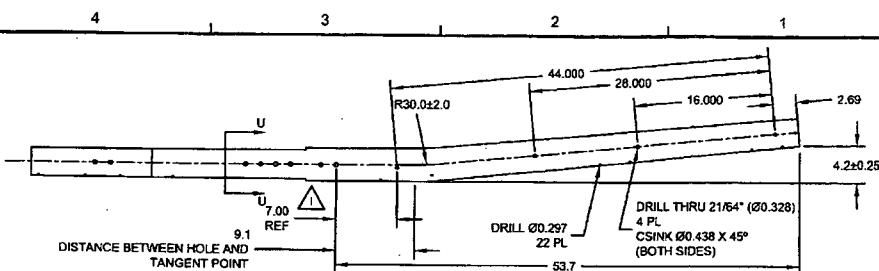
DESIGN	PH	DART AEROSPACE USA, INC	
DRAWN	XDF	KENT, WA	
CHECKED		DRAWING NO.	REV. 1
MFG. APPR.		D3391	SHEET 5 OF 8
APPROVED		TITLE	412 FLOAT SKIDTUBE
DE APPR.		SCALE	NTS
DATE	11.10.13	COPYRIGHT © 2005 BY DART AEROSPACE USA, INC	
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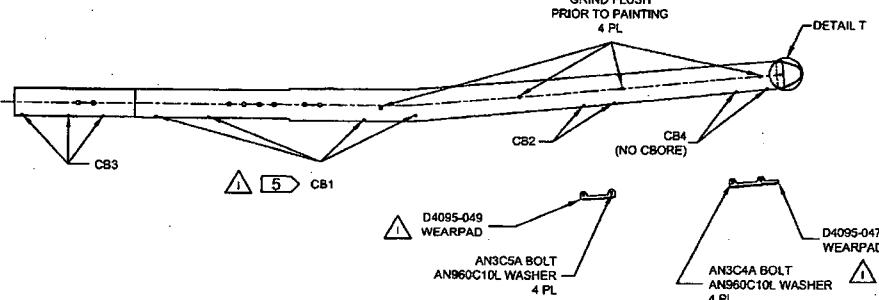




D3391-015 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

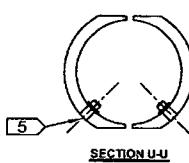


D3391-025 BENDING AND DRILLING DETAIL
(SEE CBORE DETAIL BELOW)

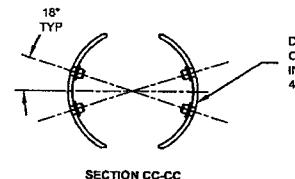


D3391-015 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)

QTY - 015	QTY - 025	PART NUMBER	DESCRIPTION
X	D3391-015	AFT TUBE ASSEMBLY	
X	D3391-025	AFT TUBE ASSEMBLY	
1	1	D2646	AFT CAP
14	4	D3670-4200	SPACER
2	2	D3672-1	WASHER
1	1	D4095-049	WEARPAD
1	1	D4095-047	WEARPAD
1	1	D6014-090	AFT TUBE
14	14	AELS-1032-130	INSERT
6	8	AELS-1032-225	INSERT
4		ALS4-428-165	INSERT
5	6	AN3C4A	BOLT
4	4	AN3CSA	BOLT
10	10	AN960C10L	WASHER

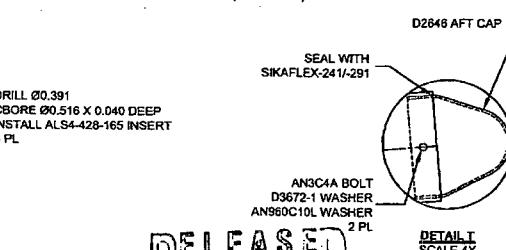


SECTION U-U
SCALE 3X



SECTION CC-CC
SCALE 3X

D3391-025 ASSEMBLY AND CBORE DETAIL
(SEE TABLE)



RELEASED
2011-11-04

CBORE HOLES MARKED CB1-CB4 AS FOLLOWS AND
INSTALL AELS-1032-XXX AFTER FINISH AS NOTED

HOLES MARKED	QTY D3391-015	QTY D3391-025	CBORE	P/N
CB1	8	8	Ø0.430 X 0.170	AELS-1032-225
CB2	4	4	Ø0.430 X 0.170	AELS-1032-130
CB3	6	6	Ø0.430 X 0.040	AELS-1032-130
CB4	4	4	NONE	AELS-1032-130

DESIGN	PH	DART AEROSPACE USA, INC
DRAWN	XDF	KENT, WA
CHECKED		DRAWING NO.
MFG. APPR.		REV. 1 D3391
APPROVED		SHEET 8 OF 8
DE APPR.		TITLE
		SCALE
		NTS
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		DATE 11.10.13

DART AEROSPACE LTD		Work Order:	
Description: Float Skidtube (412)		Part Number:	D3391-3
Inspection Dwg: D3391 Rev: I		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Lathe Section						
14.000	+/-0.010	14.00	/	X	tape	LG-2
3.500	+/-0.010	3.500	/	X	Vern	CNC-8
Ø3.200	+/-0.010	3.202	/	/		
Ø3.750	+/-0.010	3.750	/	/		
30° x 0.060 chamfer	+/-0.010	30° x .060	/	/		
88.93	+/-0.030	88.93	/		tape	LG-25

Measured by: KJ/Arnold L

Date: 14/03/08

Audited by: S.M.B

Date: 14/3/08

HAAS Section						
1.526	+0.000/-0.030	1.505	/		Vern	ML-06
7.500	+/-0.010	7.500	/		"	
27.750	+/-0.010	27.750	/		M-tape	ML-08
31.750	+/-0.010	31.750	/		"	
35.250	+/-0.010	35.250	/		"	
3.300	+/-0.010	3.305	/		Vern	ML-06
0.200	+/-0.010	.200	/		"	
3.520	+/-0.010	3.525	/		"	
0.687	+0.010/-0.000	.687	/		"	
R0.062	+/-0.010	R.062	/			
Ø0.484	+0.005/-0.001	Ø.488	/			

Measured by: S.M.B

Date: 14/03/17

Audited by: S.M.B

Date: 14/03/19

Rev	Date	Change	Revised by	Approved
A	06.04.24	New Issue P/O D3391-015/-025	KJ/JLM	
B	06.06.19	Dwg revision update	KJ/JLM	
C	07.04.20	Ø0.208 dimension removed	KJ/JLM	
D	07.09.06	0.400 dimension removed	KJ/JLM	
E	07.11.23	Dwg Rev. updated	KJ/EC/DD	
F	09.04.27	Dimensions updated per Rev H and NCR09-028	KJ/JLM	
G	09.11.16	Dimension 0.200 removed	KJ	
H	11.06.21	Dimension 44.995 removed	KJ	
I	12.05.15	Dwg Rev updated	KJ	
J	12.05.23	Dimension updated	KJ	
K	12.10.15	88.93 dimension removed	KJ	
L	12.11.28	88.93 dimension added	KJ	

DQA:

Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed:

Date: _____

Work Order update only

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS							
Part No. _____	Rework <input type="checkbox"/>	Skid/tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
NCR No. _____	Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
	Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
	Suspected Unapproved <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear	General		Folio/Program		Outside Dimensions		Pressure/Forced Set-up	
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>	Grain <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>	Weld <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>
	Centre Not Concentric <input type="checkbox"/>	BOM/Route <input type="checkbox"/>	Hardware <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Part Moved <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>
	Cracks <input type="checkbox"/>	Broken/Damage/Defect <input type="checkbox"/>	Inspection Incomplete/Unqualified <input type="checkbox"/>	Instructions Incomplete/Unclear <input type="checkbox"/>	Misaligned/off center <input type="checkbox"/>			
	Crimp/Kink/Ripple/Wave <input type="checkbox"/>	Burrs <input type="checkbox"/>			Mislabeled <input type="checkbox"/>			
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>			Misread <input type="checkbox"/>			
	Crushing <input type="checkbox"/>	Countersink <input type="checkbox"/>			Off-set <input type="checkbox"/>			
	Heat Treat <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>			Out of Calibration <input type="checkbox"/>			
	Inspection Strip in Tube <input type="checkbox"/>	Drawing <input type="checkbox"/>			Out of Sequence <input type="checkbox"/>			
	Marks/Chatter <input type="checkbox"/>	Drill Holes <input type="checkbox"/>						
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>						
	Wave/Twist in Tube <input type="checkbox"/>	Fit/Function <input type="checkbox"/>						